

Serial No. 10/633,938

CLAIMS

Claims 1-40 (Cancelled).

41 (Previously presented). An apparatus for increasing the flow of blood in a patient, the apparatus comprising:

- (A) a base contoured to seat near a central region of a patient's chest;
- (B) a substantially inelastic belt means configured to wrap around said patient's chest and having opposite extremities;
- (C) a powered belt means tightener coupled to said base and said belt means extremities and having on and off states and, when in said on state, moving said belt means extremities in directions to tighten said belt means around said patient's chest; and
- (D) a switch, coupled to said belt means tightener and having first and second configurations, said switch being manually movable between said first and second configurations and, when in said second configuration, placing said belt means tightener in said on state.

42 (Previously presented). The apparatus of Claim 41 further comprising defibrillating means coupled to said base.

43 (Previously presented). The apparatus of Claim 42 further comprising first and second spaced electrodes mounted to said apparatus for contacting two spaced outer chest

Serial No. 10/633,938

surfaces with said first electrode being mounted to a base outer, chest-contacting surface and said second electrode being mounted to an apparatus chest-contacting surface which is spaced from said first electrode.

44 (Previously presented). The apparatus of Claim 211 further comprising first and second spaced electrodes mounted to said apparatus for contacting two spaced outer chest surfaces with said first electrode being mounted to a base outer, chest-contacting surface and said second electrode being mounted to an apparatus chest-contacting surface which is spaced from said first electrode.

45 (Previously presented). The apparatus of Claim 41 wherein said belt means tightener, when in said on state, moves said two belt means connectors substantially equally in said directions to tighten said belt means around said patient.

46 (Previously presented). The apparatus of Claim 41 wherein said belt means tightener includes an electric motor.

47 (Previously presented). The apparatus of Claim 41 wherein said belt means tightener includes a fluid-pressure motor.

48 (Previously presented). The apparatus of Claim 47 wherein said belt means tightener includes a hydraulic motor.

Serial No. 10/633,938

49 (Previously presented). The apparatus of Claim 47 wherein said belt means tightener includes a pneumatic motor.

50 (Previously presented). A method of CPR treating patients comprising:

- (A) seating a base of a blood flow increasing apparatus on a patient's chest near a central region of said chest;
- (B) wrapping a belt means with first and second opposite extremities around said patient's chest;
- (C) fastening to said apparatus any of said extremities of said belt means not already fastened to said apparatus;
- (D) with a powered belt means tightener, coupled to said base and said belt means extremities and having on and off states, in said on state, moving said belt means extremities in a direction to tighten said belt means around said patient's chest; and
- (E) placing said belt means tightener in said on state.

51 (Previously presented). The method of Claim 50 further including periodically repeating steps (D) to (E).

52 (Previously presented). The method of Claim 51 further comprising defibrillating the chest of said patient undergoing CPR.

Serial No. 10/633,938

53 (Previously presented). The method of Claim 52 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

54 (Previously presented). The method of Claim 51 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

55 (Previously presented). The method of Claim 50 wherein said belt means tightener, when in said on state, produces said belt means tightening resultants directed substantially tangentially to said chest and applied substantially equally to said two belt means extremities and moves said two belt means extremities substantially equally in said direction to tighten said belt means around said patient.

56 (Previously presented). The method of Claim 55 wherein said belt means tightener includes an electric motor.

57 (Previously presented). The method of Claim 55 wherein said belt means tightener includes a fluid-pressure motor.

58 (Previously presented). The method of Claim 57 wherein said belt means tightener includes a hydraulic motor.

59 (Previously presented). The method of Claim 57 wherein said belt means tightener includes a pneumatic motor.

Serial No. 10/633,938

60 (Previously presented). An apparatus for increasing the flow of blood in a patient, the apparatus comprising:

- (A) a base contoured to seat near a central region of a patient's chest;
- (B) substantially inelastic belt means configured to wrap around said patient's chest and having opposite extremities;
- (C) a powered belt means tightener, coupled to said base and said belt means extremities, for, upon the receipt of a particular signal, (a) moving said belt means extremities in directions to tighten said belt means around said patient's chest and (b) depressing said base towards said patient's chest; and
- (D) control means, coupled to said belt means tightener, for periodically providing said particular signal to said tightener.

61 (Previously presented). The apparatus of Claim 60 further comprising defibrillating means coupled to said base.

62 (Previously presented). The apparatus of Claim 61 further comprising first and second spaced electrodes mounted to said apparatus for contacting two spaced outer chest surfaces with said first electrode being mounted to a base outer, chest-contacting surface and said second electrode being mounted to an apparatus chest-contacting surface which is spaced from said first electrode.

Serial No. 10/633,938

63 (Previously presented). The apparatus of Claim 60 further comprising first and second spaced electrodes mounted to said apparatus for contacting two spaced outer chest surfaces with said first electrode being mounted to a base outer, chest-contacting surface and said second electrode being mounted to an apparatus chest-contacting surface which is spaced from said first electrode.

64 (Previously presented). The apparatus of Claim 60 wherein said belt means tightener, when in said on state, moves said two belt means connectors substantially equally in said directions to tighten said belt means around said patient.

65 (Previously presented). The apparatus of Claim 64 wherein said belt means tightener includes an electric motor.

66 (Previously presented). The apparatus of Claim 64 wherein said belt means tightener includes a fluid-pressure motor.

67 (Previously presented). The apparatus of Claim 66 wherein said belt means tightener includes a hydraulic motor.

68 (Previously presented). The apparatus of Claim 66 wherein said belt means tightener includes a pneumatic motor.

69 (Previously presented). A method of CPR treating patients comprising:

Serial No. 10/633,938

- (A) seating a base of a blood flow increasing apparatus on a patient's chest near a central region of said chest;
- (B) wrapping a belt means with first and second opposite extremities around said patient's chest;
- (C) fastening to said apparatus any of said extremities of said belt means not already fastened to said apparatus;
- (D) periodically providing a particular signal to a powered belt means tightener coupled to said base and said belt means extremities; and
- (E) upon the receipt of said particular signal by said belt means tightener, moving with said belt means tightener, said belt means extremities in a direction to tighten said belt means around said patient's chest and to depress said base towards said patient's chest.

70 (Previously presented). The method of Claim 69 further including periodically repeating steps (D) and (E).

71 (Previously presented). The method of Claim 70 further comprising defibrillating the chest of said patient undergoing CPR.

72 (Previously presented). The method of Claim 71 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

Serial No. 10/633,938

73 (Previously presented). The method of Claim 69 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

74 (Previously presented). The method of Claim 69 wherein said belt means tightener, when in said on state, produces said belt means tightening resultants directed substantially tangentially to said chest and applied substantially equally to said two belt means extremities and moves said two belt means extremities substantially equally in said directions to tighten said belt means around said patient.

75 (Previously presented). The method of Claim 74 wherein said belt means tightener includes an electric motor.

76 (Previously presented). The method of Claim 74 wherein said belt means tightener includes a fluid-pressure motor.

77 (Previously presented). The method of Claim 76 wherein said belt means tightener includes a hydraulic motor.

78 (Previously presented). The method of Claim 76 wherein said belt means tightener includes a pneumatic motor.

79 (Previously presented). An apparatus for increasing the flow of blood in a patient, the apparatus comprising:

Serial No. 10/633,938

- (A) a base contoured to seat near a central region of a patient's chest;
- (B) an actuator;
- (C) substantially inelastic belt means configured to wrap around said patient's chest; and
- (D) a force converter, mounted on said base, coupled to said actuator, and having two belt means connectors coupled to opposite extremities of said belt means, for converting a force applied to said actuator and directed toward said chest into belt means tightening resultants applied to said two belt means connectors directed substantially tangentially to said chest to cause movement of said two belt means connectors in the directions to tighten said belt means around said patient; and
- (E) a power unit, coupled to said converter, for applying a force to said converter to cause said converter to move said two belt means connectors in the directions to tighten said belt means around said patient.

80 (Previously presented). The apparatus of Claim 79 further comprising defibrillating means coupled to said base.

81 (Previously presented). The apparatus of Claim 80 further comprising first and second spaced electrodes mounted to said apparatus for contacting two spaced outer chest surfaces with said first electrode being mounted to a base outer, chest-contacting surface and said second electrode being mounted to an apparatus chest-contacting surface which is spaced from said first electrode.

Serial No. 10/633,938

82 (Previously presented). The apparatus of Claim 79 further comprising first and second spaced electrodes mounted to said apparatus for contacting two spaced outer chest surfaces with said first electrode being mounted to a base outer, chest-contacting surface and said second electrode being mounted to an apparatus chest-contacting surface which is spaced from said first electrode.

83 (Previously presented). The apparatus of Claim 79 wherein said power unit moves said two belt means connectors substantially equally in said direction to tighten said belt means around said patient.

84 (Previously presented). The apparatus of Claim 83 wherein said power unit includes an electric motor.

85 (Previously presented). The apparatus of Claim 83 wherein said power unit includes a fluid-pressure motor.

86 (Previously presented). The apparatus of Claim 85 wherein said power unit includes a hydraulic motor.

87 (Previously presented). The apparatus of Claim 85 wherein said power unit includes a pneumatic motor.

Serial No. 10/633,938

88 (Previously presented). A method of CPR treating patients comprising:

- (A) seating a base of a blood flow increasing apparatus on a patient's chest near a central region of said chest, said apparatus including a converter, mounted on said base and coupled to said actuator and having two belt means connectors couplable to opposite extremities of a belt means means, said converter being for converting a force directed toward said chest and applied to said actuator into belt means tightening resultants applied to said two belt means connectors directed substantially tangentially to said chest to cause movement of said two belt means connectors in the directions to tighten said belt means around said patient;
- (B) wrapping a belt means with first and second opposite extremities around said patient's chest;
- (C) fastening to said apparatus any of said extremities of said belt means not already fastened to said apparatus; and
- (D) with a power unit, coupled to said converter, applying a force to said converter to cause said belt means extremities to move in directions to tighten said belt means around said patient's chest.

89 (Previously presented). The method of Claim 88 further including periodically repeating step (D).

90 (Previously presented). The method of Claim 89 further comprising defibrillating the chest of said patient undergoing CPR.

Serial No. 10/633,938

91 (Previously presented). The method of Claim 90 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

92 (Previously presented). The method of Claim 88 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

93 (Previously presented). The method of Claim 88 wherein said power unit produces said belt means tightening resultants directed substantially tangentially to said chest and applied substantially equally to said two belt means extremities and moves said two belt means extremities substantially equally in said direction to tighten said belt means around said patient.

94 (Previously presented). The method of Claim 93 wherein said power unit includes an electric motor.

95 (Previously presented). The method of Claim 93 wherein said power unit includes a fluid-pressure motor.

96 (Previously presented). The method of Claim 95 wherein said power unit includes a hydraulic motor.

Serial No. 10/633,938

97 (Previously presented). The method of Claim 95 wherein said power unit includes a pneumatic motor.

98 (Previously presented). A CPR apparatus for increasing the flow of blood in a patient, said apparatus comprising:

- (A) a base contoured to seat near a central region of said patient's chest;
- (B) a manual actuator comprising first and second hand grippable handles;
- (C) substantially inelastic belt means having first and second sections for wrapping around said chest;
- (D) a force converter mounted on said base, connected to said actuator and having belt means connectors for connecting to said first and second sections of said belt means means, for converting a force manually applied to said actuator and directed inwardly toward said chest into (1) a chest compressing resultant directed through said base toward said chest and (2) belt means tightening resultants applied to said belt means connectors directed tangential to said chest, said converter comprising:
 - (1) a first arm having a first handle end to which said first handle is mounted and having an opposite, first belt means end to which said first section of said belt means is attached, said first arm being pivotally mounted to said base at a first arm fulcrum generally intermediate said first handle and said first belt means end; and
 - (2) a second arm having a second handle end to which said second handle is mounted and having an opposite, second belt means end to which

Serial No. 10/633,938

said second section of said of said belt means is attached, said second arm being pivotally mounted to said base at a second arm fulcrum generally intermediate said second handle and said second belt means end; and

- (E) a power unit, coupled to said first and second arms, for applying a lateral force to said first and second arms to move said first and second arms in the directions to tighten said belt means around said patient.

99 (Previously presented). The apparatus of Claim 98 wherein said power unit, automatically and in regular periodic intervals, applies said lateral force to said first and second arms to move said first and second arms in said directions.

100 (Previously presented). The apparatus of Claim 99 further comprising defibrillating means coupled to said base.

101 (Previously presented). The apparatus of Claim 100 further comprising first and second spaced electrodes mounted to said apparatus for contacting two spaced outer chest surfaces with said first electrode being mounted to a base outer, chest-contacting surface and said second electrode being mounted to an apparatus chest-contacting surface which is spaced from said first electrode.

102 (Previously presented) The apparatus of Claim 99 further comprising first and second spaced electrodes mounted to said apparatus for contacting two spaced outer chest

Serial No. 10/633,938

surfaces with said first electrode being mounted to a base outer, chest-contacting surface and said second electrode being mounted to an apparatus chest-contacting surface which is spaced from said first electrode.

103 (Previously presented). The apparatus of Claim 99 wherein said power unit moves said two belt means connectors substantially equally in said direction to tighten said belt means around said patient.

104 (Previously presented). The apparatus of Claim 103 wherein said power unit includes an electric motor.

105 (Previously presented). The apparatus of Claim 103 wherein said power unit includes a fluid-pressure motor.

106 (Previously presented). The apparatus of Claim 105 wherein said power unit includes a hydraulic motor.

107 (Previously presented). The apparatus of Claim 105 wherein said power unit includes a pneumatic motor.

108 (Previously presented). A method of CPR treating patients comprising:

- (A) seating a base of a blood flow increasing apparatus on a patient's chest near a central region of said chest, said apparatus including a manual actuator

Serial No. 10/633,938

comprising first and second hand grippable handles, a force converter mounted on said base, connected to said actuator and having belt means connectors for connecting to first and second sections of a belt means; said converter being for converting a force manually applied to said actuator and directed inwardly toward said chest into (1) a chest compressing resultant directed through said base toward said chest and (2) belt means tightening resultants applied to said belt means connectors directed tangential to said chest, said converter comprising:

- (1) a first arm having a first handle end to which said first handle is mounted and having an opposite, first belt means end to which said first section of said belt means is attached, said first arm being pivotally mounted to said base at a first arm fulcrum generally intermediate said first handle and said first belt means end; and
 - (2) a second arm having a second handle end to which said second handle is mounted and having an opposite, second belt means end to which said second section of said belt means is attached, said second arm being pivotally mounted to said base at a second arm fulcrum generally intermediate said second handle and said second belt means end;
- (B) wrapping said belt means with said first and second opposite extremities around said patient's chest;
- (C) fastening to said apparatus any of said extremities of said belt means not already fastened to said apparatus; and

Serial No. 10/633,938

(D) with a power unit, coupled to said first and second arms, applying a lateral force to said first and second arms to move said first and second arms in the directions to tighten said belt means around said patient

109 (Previously presented). The method of Claim 108 further including periodically repeating step (D).

110 (Previously presented). The method of Claim 109 further comprising defibrillating the chest of said patient undergoing CPR.

111 (Previously presented). The method of Claim 110 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

112 (Previously presented). The method of Claim 109 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

113 (Previously presented). The method of Claim 107 wherein said power unit produces said belt means tightening resultants directed substantially tangentially to said chest and applied substantially equally to said two belt means extremities and moves said two belt means extremities substantially equally in said direction to tighten said belt means around said patient.

Serial No. 10/633,938

114 (Previously presented) The method of Claim 113 wherein said power unit includes an electric motor.

115 (Previously presented). The method of Claim 113 wherein said power unit includes a fluid-pressure motor.

116 (Previously presented). The method of Claim 115 wherein said power unit includes a hydraulic motor.

117 (Previously presented). The method of Claim 115 wherein said power unit includes a pneumatic motor.

118 (New). An apparatus for increasing the flow of blood in a patient, the apparatus comprising:

- (A) a substantially inelastic belt means configured to wrap around said patient's chest and having first and second extremities;
 - (B) actuator means, coupled to said belt means, for, upon the receipt of power, moving said belt means in a direction to tighten said belt means around said patient's chest;
 - (C) power means coupled to said actuator means and having first and second states and, when in said first state, providing power to said actuator means;
- and

Serial No. 10/633,938

(D) a switch, coupled to said power means and having first and second configurations, said switch being movable between said first and second configurations and, when in said second configuration, placing said power means in said first state.

119 (New). The apparatus of Claim 118 further including computer control means, coupled to said switch, for timing the movement of said switch between said first and second configurations.

120 (New). The apparatus of Claim 118 further comprising defibrillating means coupled to said belt means.

121 (New) The apparatus of Claim 120 further including detector means coupled to said belt means for determining when said patient's chest is under compression and wherein said defibrillating means is coupled to said detector means and induces an electric current through said patient's chest when said chest is under compression.

122 (New) The apparatus of Claim 121 wherein said detector means determines when said chest is about under maximal compression and said defibrillating means induces said electric current through said patient's chest when said chest is about under maximal compression

Serial No. 10/633,938

123 (New). The apparatus of Claim 118 wherein said power means, when in said first state, moves said belt means in said direction to tighten said belt means substantially equally around said patient's left and right sides.

124 (New). The apparatus of Claim 118 wherein said power means includes an electric motor.

125 (New). The apparatus of Claim 118 wherein said power means includes a fluid-pressure motor.

126 (New). The apparatus of Claim 125 wherein said power means includes a hydraulic motor.

127 (New). The apparatus of Claim 125 wherein said power means includes a pneumatic motor.

128 (New). A method of CPR treating patients comprising:

- (A) wrapping a belt means with first and second opposite extremities around said patient's chest;
- (B) fastening to an actuator means said belt means including any of said extremities of said belt means not already fastened around said patient's chest;
- (C) placing a power means having first and second states in said first state; and

Serial No. 10/633,938

(D) with said power means in said first state, providing power from said power means to said actuator means and moving said belt means in a direction to tighten said belt means around said patient's chest.

129 (New). The method of Claim 128 further including periodically repeating steps (C) and (D).

130 (New). The method of Claim 129 further comprising defibrillating the chest of said patient undergoing CPR.

131 (New). The method of Claim 130 further including detecting when said belt means has placed said patient's chest under compression; and, when said belt means has placed said chest under compression, inducing a defibrillating electric current through said chest.

132 (New) The method of Claim 131 further including detecting when said belt means has placed said patient's chest about under maximal compression and, when said belt means has placed said chest about under maximal compression, inducing said defibrillating electric current through said chest

133 (New). The method of Claim 129 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

Serial No. 10/633,938

134 (New). The method of Claim 129 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

135 (New). An apparatus for increasing the flow of blood in a patient, said apparatus comprising:

- (A) substantially inelastic belt means configured to wrap around said patient's chest and having opposite extremities;
- (B) a powered belt means tightener, coupled to said belt means, for, upon the receipt of a particular signal, moving said belt means in a direction to tighten said belt means around said patient's chest; and
- (C) control means, coupled to said belt means tightener, for periodically providing said particular signal to said belt means tightener.

136 (New). The apparatus of Claim 135 further comprising defibrillating means coupled to said belt means.

137 (New) The apparatus of Claim 136 further including detector means coupled to said belt means for determining when said patient's chest is under compression and wherein said defibrillating means is coupled to said detector means and induces an electric current through said patient's chest when said chest is under compression.

138 (New) The apparatus of Claim 137 wherein said detector means determines when said chest is about under maximal compression and said defibrillating means induces

Serial No. 10/633,938

said electric current through said patient's chest when said chest is about under maximal compression

139 (New). The apparatus of Claim 136 further comprising first and second spaced electrodes mounted to said apparatus for contacting two spaced outer chest surfaces.

140 (New). The apparatus of Claim 136 wherein said belt means tightener, when in said on state, moves two belt means in said direction to tighten said belt means substantially equally around said patient's left and right sides.

141 (New). The apparatus of Claim 140 wherein said belt means tightener includes an electric motor.

142 (New). The apparatus of Claim 140 wherein said belt means tightener includes a fluid-pressure motor.

143 (New). The apparatus of Claim 142 wherein said belt means tightener includes a hydraulic motor.

144 (New). The apparatus of Claim 142 wherein said belt means tightener includes a pneumatic motor.

145 (New). A method of CPR treating patients comprising:

Serial No. 10/633,938

- (A) wrapping a belt means with first and second opposite extremities around said patient's chest;
- (B) fastening to said apparatus any of said extremities of said belt means not already fastened to said apparatus;
- (C) periodically providing a particular signal to a powered belt means tightener coupled to said belt means extremities; and
- (D) upon the receipt of said particular signal by said belt means tightener, moving with said belt means tightener, said belt means extremities in a direction to tighten said belt means around said patient's chest.

146 (New). The method of Claim 145 further including periodically repeating steps (C) and (D).

147. (New). The method of Claim 146 further comprising defibrillating the chest of said patient undergoing CPR.

148 (New). The method of Claim 147 further including detecting when said belt means has placed said patient's chest under compression; and, when said belt means has placed said chest under compression, inducing a defibrillating electric current through said chest.

149 (New) The method of Claim 148 further including detecting when said belt means has placed said patient's chest about under maximal compression and, when said belt

Serial No. 10/633,938

means has placed said chest about under maximal compression, inducing said defibrillating electric current through said chest

150 (New). The method of Claim 147 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

151 (New). The method of Claim 145 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

152 (New). The method of Claim 145 wherein said belt means tightener, when in said on state, moves said belt means in said direction to tighten said belt means substantially equally around said patient's left and right sides.

153 (New). The method of Claim 152 wherein said belt means tightener includes an electric motor.

154 (New). The method of Claim 152 wherein said belt means tightener includes a fluid-pressure motor.

155 (New). The method of Claim 154 wherein said belt means tightener includes a hydraulic motor.

Serial No. 10/633,938

156 (New). The method of Claim 154 wherein said belt means tightener includes a pneumatic motor.

157 (New). An apparatus for increasing the flow of blood in a patient, said apparatus comprising:

- (A) substantially inelastic belt means configured to wrap around said patient's chest;
- (B) actuator means, coupled to said belt means, for, upon the receipt of power, moving said belt means in directions to alternately tighten and loosen said belt means around said patient's chest;
- (C) a cable coupled to said actuator means for providing said power to said actuator means; and
- (D) a power unit, coupled to said cable, for providing said power to said cable to cause said actuator to move said belt means in said directions to tighten and loosen said belt means around said patient.

158 (New). The apparatus of Claim 157 further comprising defibrillating means coupled to said belt means.

159 (New) The apparatus of Claim 158 further including detector means coupled to said belt means for determining when said patient's chest is under compression and wherein said defibrillating means is coupled to said detector means and induces an electric current through said patient's chest when said chest is under compression.

Serial No. 10/633,938

160 (New) The apparatus of Claim 159 wherein said detector means determines when said chest is about under maximal compression and said defibrillating means induces said electric current through said patient's chest when said chest is about under maximal compression

161 (New). The apparatus of Claim 158 further comprising first and second spaced electrodes mounted to said apparatus for contacting two spaced outer chest surfaces with said first electrode being mounted to an apparatus chest-contacting surface and said second electrode being mounted to an apparatus chest-contacting surface which is spaced from said first electrode.

162 (New). The apparatus of Claim 157 further comprising first and second spaced electrodes mounted to said apparatus for contacting two spaced outer chest surfaces with said first electrode being mounted to an apparatus chest-contacting surface and said second electrode being mounted to an apparatus chest-contacting surface which is spaced from said first electrode.

163 (New). The apparatus of Claim 157 wherein said power unit causes said actuator means to move said belt means in said directions to tighten said belt means substantially equally around said patient's let and right sides.

Serial No. 10/633,938

164 (New). The apparatus of Claim 163 wherein said power unit includes an electric motor.

165 (New). The apparatus of Claim 163 wherein said power unit includes a fluid-pressure motor.

166 (New). The apparatus of Claim 165 wherein said power unit includes a hydraulic motor.

167 (New). The apparatus of Claim 165 wherein said power unit includes a pneumatic motor.

168 (New). The apparatus of Claim 157 wherein said power unit includes computer controls for timing the application of said force to said actuator.

169 (New). The apparatus of Claim 157 wherein said cable conveys electrical power to said actuator.

170 (New). The apparatus of Claim 157 wherein said cable conveys fluid pressure to said actuator.

171 (New). A method of CPR treating patients comprising:

Serial No. 10/633,938

- (A) wrapping a belt means with first and second opposite extremities around said patient's chest;
- (B) fastening to an actuator means said belt means including any of said extremities of said belt means not already fastened around said patient's chest;
- (C) conveying power from a power unit to said actuator along a cable; and
- (D) when said power reaches said actuator means, moving said belt means in a direction to tighten said belt means around said patient's chest.

172 (New). The method of Claim 171 further including periodically repeating steps (C) and (D).

173 (New). The method of Claim 172 further comprising defibrillating the chest of said patient undergoing CPR.

174 (New). The method of Claim 173 further including detecting when said belt means has placed said patient's chest under compression; and, when said belt means has placed said chest under compression, inducing a defibrillating electric current through said chest.

175 (New). The method of Claim 174 further including detecting when said belt means has placed said patient's chest about under maximal compression and, when said belt

Serial No. 10/633,938

means has placed said chest about under maximal compression, inducing said defibrillating electric current through said chest

176 (New). The method of Claim 173 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

177 (New). The method of Claim 171 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

178 (New). The method of Claim 171 wherein said belt means are moved in said direction to tighten said belt means substantially equally around said patient's left and right sides.

179 (New). The method of Claim 178 wherein said power unit includes an electric motor.

180 (New). The method of Claim 178 wherein said power unit includes a fluid-pressure motor.

181 (New). The method of Claim 180 wherein said power unit includes a hydraulic motor.

Serial No. 10/633,938

182 (New) The method of Claim 180 wherein said power unit includes a pneumatic motor.

183 (New). A CPR apparatus for increasing the flow of blood in a patient, said apparatus comprising:

- (A) substantially inelastic belt means configured to wrap around said patient's chest;
- (B) cable means coupled to said belt means for, upon the receipt of a mechanical force, tightening and loosening said belt means;
- (C) a force device, coupled to said cable means, for applying said mechanical force to said cable means; and
- (D) a power unit, coupled to said force device, for providing power to said force device to enable said force device to apply said mechanical force to said cable means.

184 (New). The apparatus of Claim 183 wherein said force device drives said cable rotatingly.

185 (New). The apparatus of Claim 183 wherein said force device drives said cable longitudinally, reciprocatingly.

186 (New). The apparatus of Claim 183 wherein said force device is located in said power unit.

Serial No. 10/633,938

187 (New). The apparatus of Claim 183 wherein said power unit, automatically and in regular periodic intervals, provides said power to said force device.

188 (New). The apparatus of Claim 183 further comprising defibrillating means coupled to said base.

189 (New) The apparatus of Claim 188 further including detector means coupled to said belt means for determining when said patient's chest is under compression and wherein said defibrillating means is coupled to said detector means and induces an electric current through said patient's chest when said chest is under compression.

190 (New) The apparatus of Claim 189 wherein said detector means determines when said chest is about under maximal compression and said defibrillating means induces said electric current through said patient's chest when said chest is about under maximal compression

191 (New). The apparatus of Claim 188 further comprising first and second spaced electrodes mounted to said apparatus for contacting two spaced outer chest surfaces with said first electrode being mounted to an apparatus chest-contacting surface and said second electrode being mounted to an apparatus chest-contacting surface which is spaced from said first electrode.

Serial No. 10/633,938

192 (New). The apparatus of Claim 183 further comprising first and second spaced electrodes mounted to said apparatus for contacting two spaced outer chest surfaces with said first electrode being mounted to an apparatus chest-contacting surface and said second electrode being mounted to an apparatus chest-contacting surface which is spaced from said first electrode.

193 (New). The apparatus of Claim 183 wherein said force device causes said cable means to move said belt means in said direction to tighten said belt means substantially equally around said patient's left and right sides.

194 (New). The apparatus of Claim 183 wherein said power unit includes an electric motor.

195 (New). The apparatus of Claim 183 wherein said power unit includes a fluid-pressure motor.

196 (New). The apparatus of Claim 195 wherein said power unit includes a hydraulic motor.

197 (New). The apparatus of Claim 195 wherein said power unit includes a pneumatic motor.

198 (New). A method of CPR treating patients comprising:

Serial No. 10/633,938

- (A) wrapping a belt means with first and second opposite extremities around said patient's chest;
- (B) fastening to an actuator means said belt means including any of said extremities of said belt means not already fastened around said patient's chest;
- (C) conveying power from a power unit to said actuator along a cable; and
- (D) when said power reaches said actuator means, moving said belt means in a direction to tighten said belt means around said patient's chest.

199 (New). The method of Claim 198 further including periodically repeating steps (C) and (D).

200 (New). The method of Claim 199 further comprising defibrillating the chest of said patient undergoing CPR.

201 (New). The method of Claim 200 further including detecting when said belt means has placed said patient's chest under compression; and, when said belt means has placed said chest under compression, inducing a defibrillating electric current through said chest.

202 (New) The method of Claim 201 further including detecting when said belt means has placed said patient's chest about under maximal compression and, when said belt

Serial No. 10/633,938

means has placed said chest about under maximal compression, inducing said defibrillating electric current through said chest

203 (New). The method of Claim 200 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

204 (New). The method of Claim 198 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

205 (New). The method of Claim 198 wherein said belt means are moved in said direction to tighten said belt means substantially equally around said patient's left and right sides.

206 (New). The method of Claim 205 wherein said power unit includes an electric motor.

207 (New). The method of Claim 205 wherein said power unit includes a fluid-pressure motor.

208 (New). The method of Claim 207 wherein said power unit includes a hydraulic motor.

Serial No. 10/633,938

209 (New). The method of Claim 207 wherein said power unit includes a pneumatic motor.

210 (New). The method of Claim 198 wherein power is conveyed along said cable driving said cable rotatingly

211 (New). The method of Claim 198 wherein power is conveyed along said cable driving said cable longitudinally, reciprocatingly.

212 (New). The method of Claim 198 wherein said power is conveyed from said power unit to said actuator along said cable automatically and in regular periodic intervals.

213 (New). An apparatus for increasing the flow of blood in a patient, said apparatus comprising:

- (A) a substantially inelastic belt means configured to wrap around said patient's chest;
- (B) actuator means, coupled to said belt means, for moving said belt means in a direction to tighten said belt means around said patient's chest and to place said patient's chest under compression;
- (C) detector means coupled to said belt means for determining when said patient's chest is under compression; and

Serial No. 10/633,938

(D) defibrillating means, coupled to said belt means and said detector means, for inducing an electric current through said patient's chest when said chest is under compression.

214 (New) The apparatus of Claim 213 wherein said detector means determines when said chest is about under maximal compression and said defibrillating means induces said electric current through said patient's chest when said chest is about under maximal compression

215 (New). The apparatus of Claim 213 further comprising first and second spaced electrodes mounted to said apparatus for contacting two spaced outer chest surfaces with said first electrode being mounted to an apparatus chest-contacting surface and said second electrode being mounted to an apparatus chest-contacting surface which is spaced from said first electrode.

216 (New). The apparatus of Claim 213 wherein said actuator means moves said belt means in said direction to tighten said belt means substantially equally around said patient's let and right sides.

217 (New). The apparatus of Claim 216 wherein said actuator means includes an electric motor.

Serial No. 10/633,938

218 (New). The apparatus of Claim 216 wherein said actuator means includes a fluid-pressure motor.

219 (New). The apparatus of Claim 218 wherein said actuator means includes a hydraulic motor.

220 (New). The apparatus of Claim 218 wherein said actuator means includes a pneumatic motor.

221 (New). The apparatus of Claim 213 wherein said actuator means includes computer controls for timing the application of said force to said actuator.

222 (New). The apparatus of Claim 213 wherein said actuator means moves said belt means in said direction automatically and in regular intervals.

223 (New). The apparatus of Claim 213 further including a base coupled to said actuator means and said belt means and contoured to seat near a central region of a patient's chest, said actuator means, when moving said belt means in said direction to tighten said belt means around said patient's chest and to place said patient's chest under compression, moving said base towards said chest.

224 (New) The apparatus of Claim 223 wherein said detector means determines when said chest is about under maximal compression and said defibrillating means induces

Serial No. 10/633,938

said electric current through said patient's chest when said chest is about under maximal compression

225 (New). The apparatus of Claim 223 further including a converter, mounted on said base and coupled to said actuator and said belt means, for converting a force applied by said actuator into (1) a chest compressing resultant directed toward said chest and (2) a belt means tightening resultant directed tangentially to said chest.

226 (New). The apparatus of Claim 225 wherein said actuator means is a manual actuator and said converter converts a force manually applied to said actuator and directed towards said chest into said chest resultant directed inwardly through said base toward said chest and said belt tightening resultant applied to said belt means.

227 (New) The apparatus of Claim 226 wherein said detector means determines when said chest is about under maximal compression and said defibrillating means induces said electric current through said patient's chest when said chest is about under maximal compression

228 (New). A method of CPR treating patients comprising:

- (A) wrapping a belt means around said patient's chest;
- (B) moving said belt means in a direction to tighten said belt means around said patient's chest and place said chest under compression;

Serial No. 10/633,938

- (C) detecting when said belt means has placed said patient's chest under compression; and
- (D) when said belt means has placed said chest under compression, inducing a defibrillating electric current through said chest.

229 (New). The method of Claim 228 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

230 (New). The method of Claim 228 further including periodically repeating steps (B) through (D).

231 (New). The method of Claim 228 further including periodically repeating step (B).

232 (New) The method of Claim 231 further including detecting when said belt means has placed said patient's chest about under maximal compression and when said belt means has placed said chest about under maximal compression, inducing said defibrillating electric current through said chest

233 (New). The method of Claim 232 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

Serial No. 10/633,938

234 (New). The method of Claim 232 wherein, when said belt means are moved in said direction to tighten said belt means around said patient's chest and place said chest under compression, said belt means are moved substantially equally around said patient's left and right sides.

235 (New). The method of Claim 234 wherein said belt means are moved by an electric motor.

236 (New). The method of Claim 234 wherein said belt means are moved by a fluid-pressure motor.

237 (New). The method of Claim 236 wherein said belt means are moved by a hydraulic motor.

238 (New). The method of Claim 236 wherein said belt means are moved by a pneumatic motor.

239 (New) The method of Claim 234 further including detecting when said belt means has placed said patient's chest about under maximal compression and when said belt means has placed said chest about under maximal compression, inducing said defibrillating electric current through said chest

Serial No. 10/633,938

240 (New). The method of Claim 234 further including seating a base of a blood flow apparatus on said patient's chest near a central region of said chest, fastening said belt means to said apparatus, and moving said base towards said chest to said belt means in said direction to tighten said belt means around said patient's chest and to place said patient's chest under compression.

241 (New). The method of Claim 240 further including coupling an actuator to said base and said belt means, applying a force to said actuator, and converting said force applied to said actuator into (1) a chest compressing resultant directed through said base and toward said chest and (2) a belt means tightening resultant directed tangentially to said chest.

242 (New). The method of Claim 241 wherein said force is manually applied to said actuator and directed towards said chest and said method further comprises converting said force manually applied to said actuator into said chest resultant directed inwardly through said base toward said chest and said belt tightening resultant applied to said belt means.

243 (New). The method of Claim 242 further including contacting two spaced outer chest surfaces with a first electrode and a second electrode.

244 (New) The method of Claim 242 further including detecting when said belt means has placed said patient's chest about under maximal compression and when said belt

Serial No. 10/633,938

means has placed said chest about under maximal compression, inducing said defibrillating electric current through said chest

245 (New) The apparatus of Claim 42 further including detector means coupled to said belt means for determining when said patient's chest is under compression and wherein said defibrillating means is coupled to said detector means and induces an electric current through said patient's chest when said chest is under compression.

246 (New) The apparatus of Claim 245 wherein said detector means determines when said chest is about under maximal compression and said defibrillating means induces said electric current through said patient's chest when said chest is about under maximal compression

247 (New). The method of Claim 52 further including detecting when said belt means has placed said patient's chest under compression; and, when said belt means has placed said chest under compression, inducing a defibrillating electric current through said chest.

248 (New) The method of Claim 247 further including detecting when said belt means has placed said patient's chest about under maximal compression and, when said belt means has placed said chest about under maximal compression, inducing said defibrillating electric current through said chest

Serial No. 10/633,938

249 (New) The apparatus of Claim 61 further including detector means coupled to said belt means for determining when said patient's chest is under compression and wherein said defibrillating means is coupled to said detector means and induces an electric current through said patient's chest when said chest is under compression.

250 (New) The apparatus of Claim 249 wherein said detector means determines when said chest is about under maximal compression and said defibrillating means induces said electric current through said patient's chest when said chest is about under maximal compression

251 (New). The method of Claim 71 further including detecting when said belt means has placed said patient's chest under compression; and, when said belt means has placed said chest under compression, inducing a defibrillating electric current through said chest.

252 (New) The method of Claim 251 further including detecting when said belt means has placed said patient's chest about under maximal compression and, when said belt means has placed said chest about under maximal compression, inducing said defibrillating electric current through said chest

253 (New) The apparatus of Claim 80 further including detector means coupled to said belt means for determining when said patient's chest is under compression and

Serial No. 10/633,938

wherein said defibrillating means is coupled to said detector means and induces an electric current through said patient's chest when said chest is under compression.

254 (New) The apparatus of Claim 253 wherein said detector means determines when said chest is about under maximal compression and said defibrillating means induces said electric current through said patient's chest when said chest is about under maximal compression

255 (New). The method of Claim 90 further including detecting when said belt means has placed said patient's chest under compression; and, when said belt means has placed said chest under compression, inducing a defibrillating electric current through said chest.

256 (New) The method of Claim 255 further including detecting when said belt means has placed said patient's chest about under maximal compression and, when said belt means has placed said chest about under maximal compression, inducing said defibrillating electric current through said chest

257 (New) The apparatus of Claim 100 further including detector means coupled to said belt means for determining when said patient's chest is under compression and wherein said defibrillating means is coupled to said detector means and induces an electric current through said patient's chest when said chest is under compression.

Serial No. 10/633,938

258 (New) The apparatus of Claim 257 wherein said detector means determines when said chest is about under maximal compression and said defibrillating means induces said electric current through said patient's chest when said chest is about under maximal compression

259 (New). The method of Claim 110 further including detecting when said belt means has placed said patient's chest under compression; and, when said belt means has placed said chest under compression, inducing a defibrillating electric current through said chest.

260 (New) The method of Claim 259 further including detecting when said belt means has placed said patient's chest about under maximal compression and, when said belt means has placed said chest about under maximal compression, inducing said defibrillating electric current through said chest

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☒ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.